Figure 1A. Prior art magnitude digitizer.
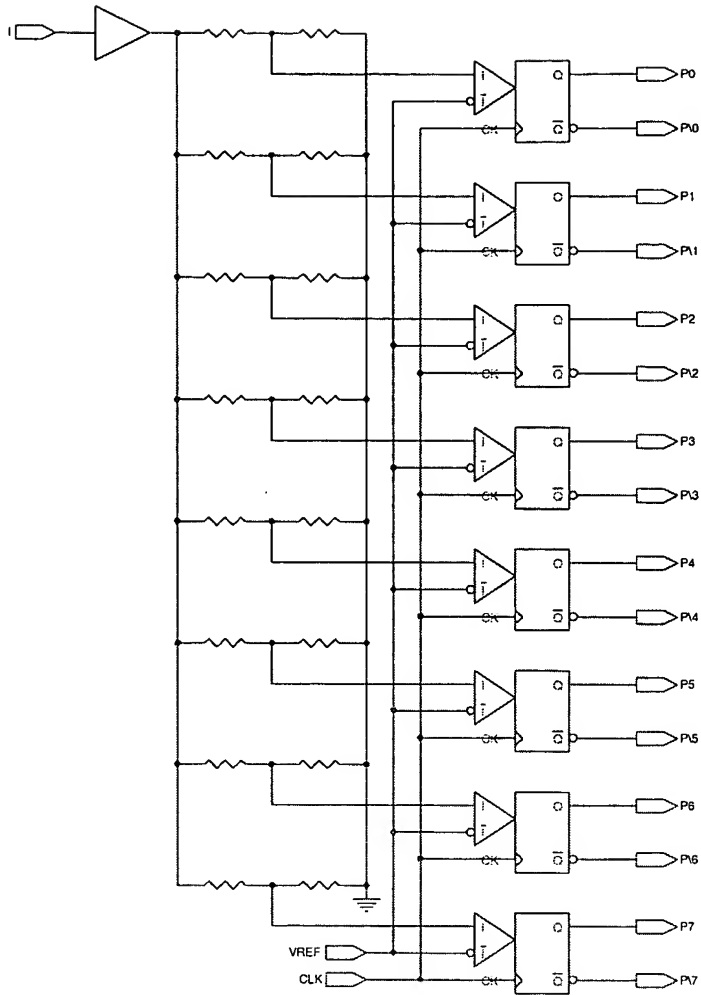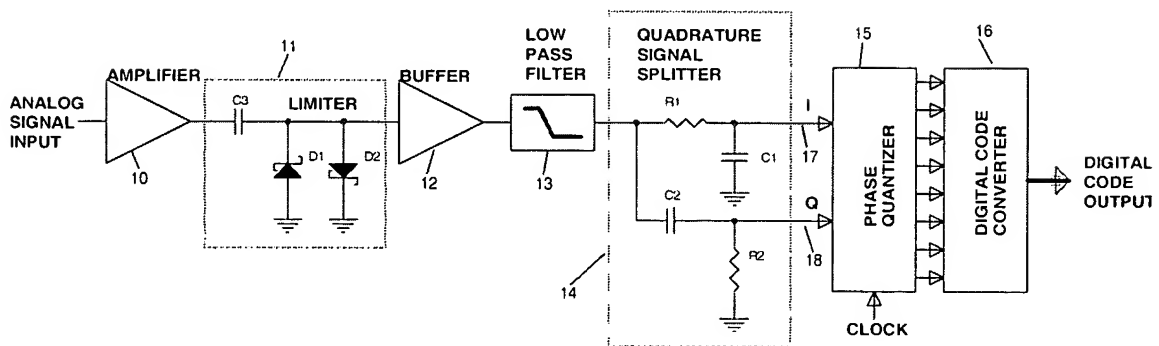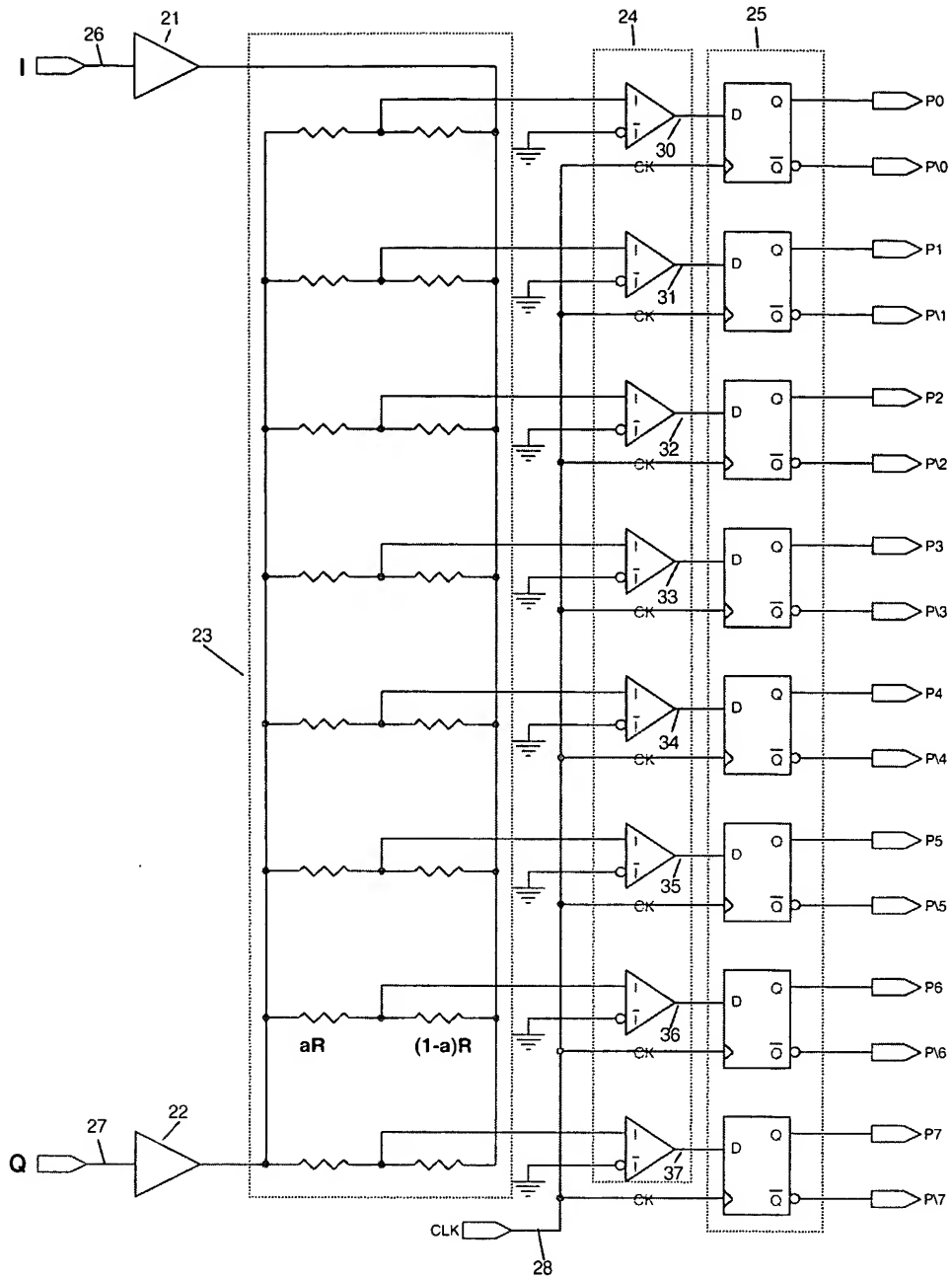
Figure 1B. An alternative embodiment of an ADC.

Figure 2. Embodiment of the phase digitizer.

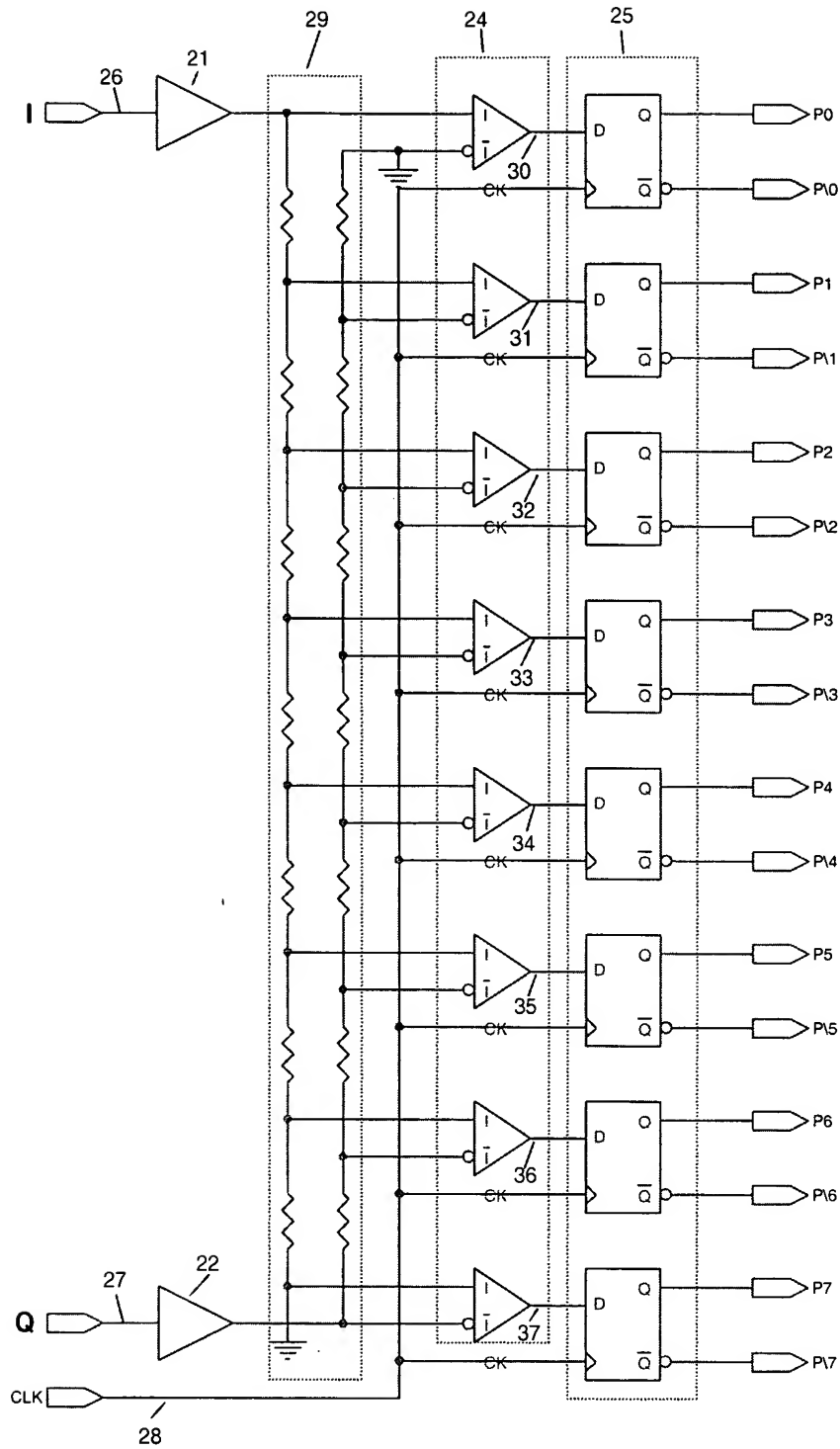Figure 3A. An embodiment of a phase quantizer.
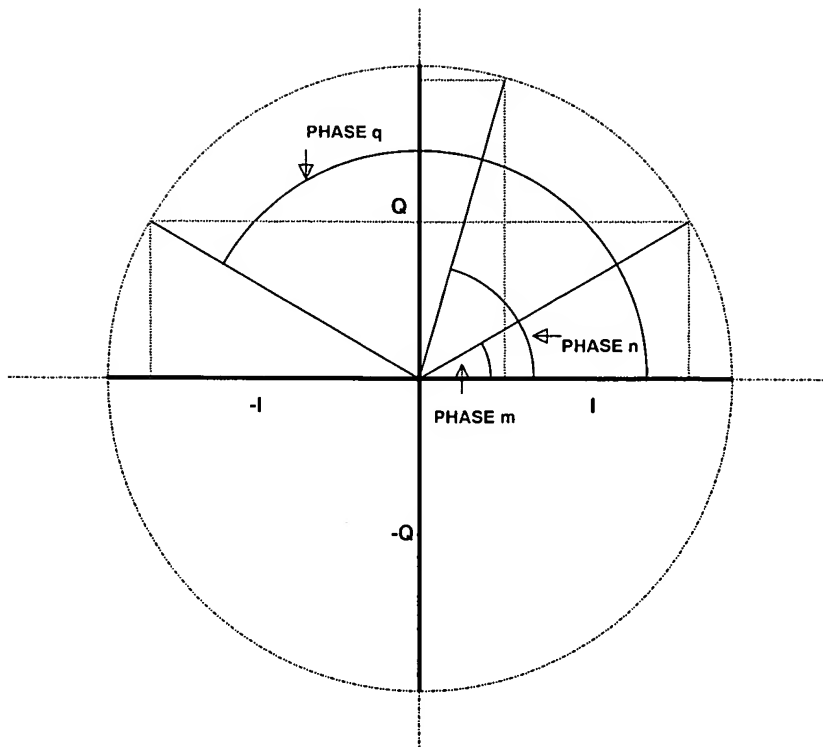
Figure 3B. Another embodiment of a phase quantizer.
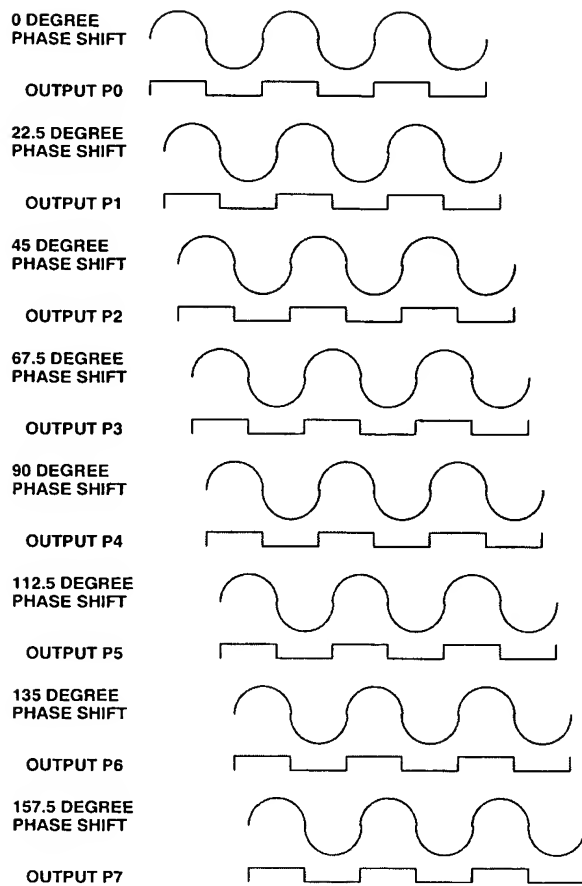
Figure 4. Phasor diagram of various phases.

Figure 5. Phase shifted sinewaves at the inputs to the comparators, and the outputs of the comparators.
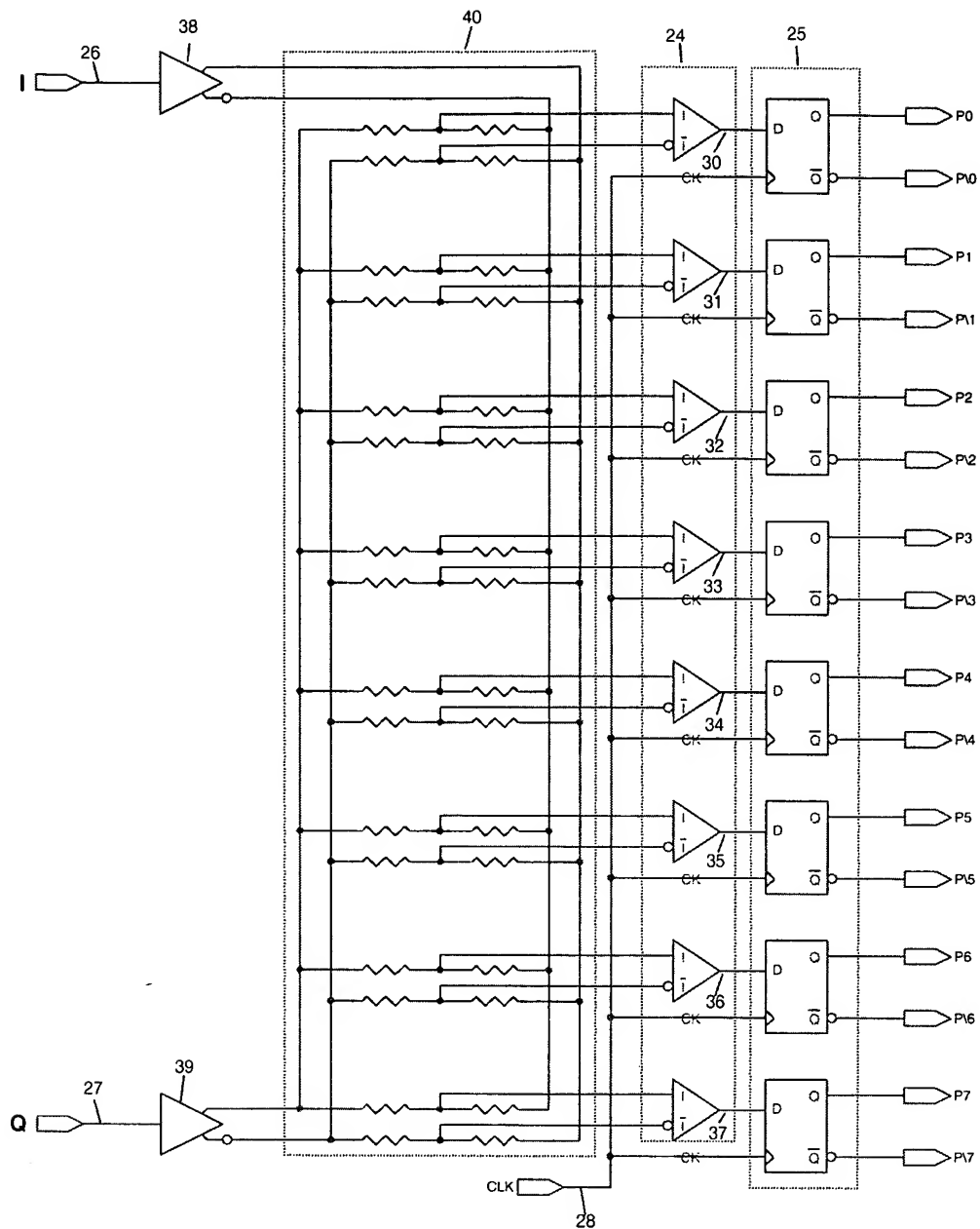
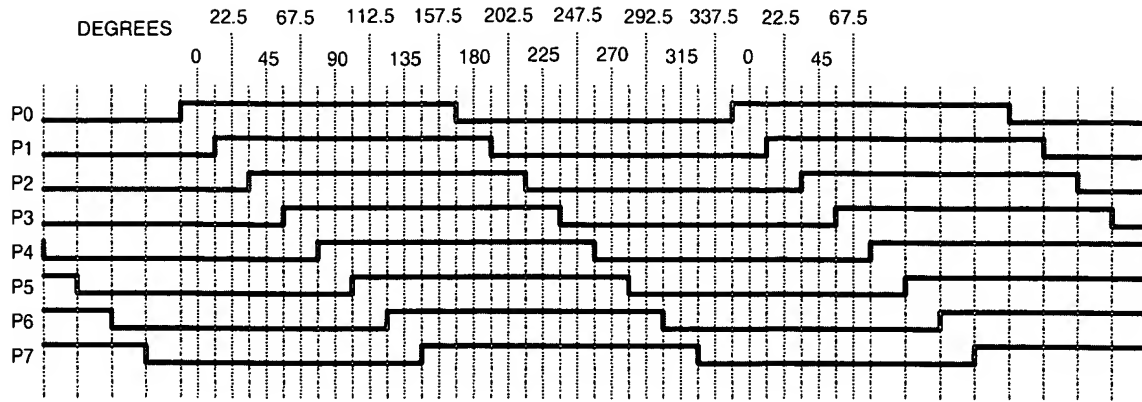Figure 6. An alternative embodiment of a phase quantizer.

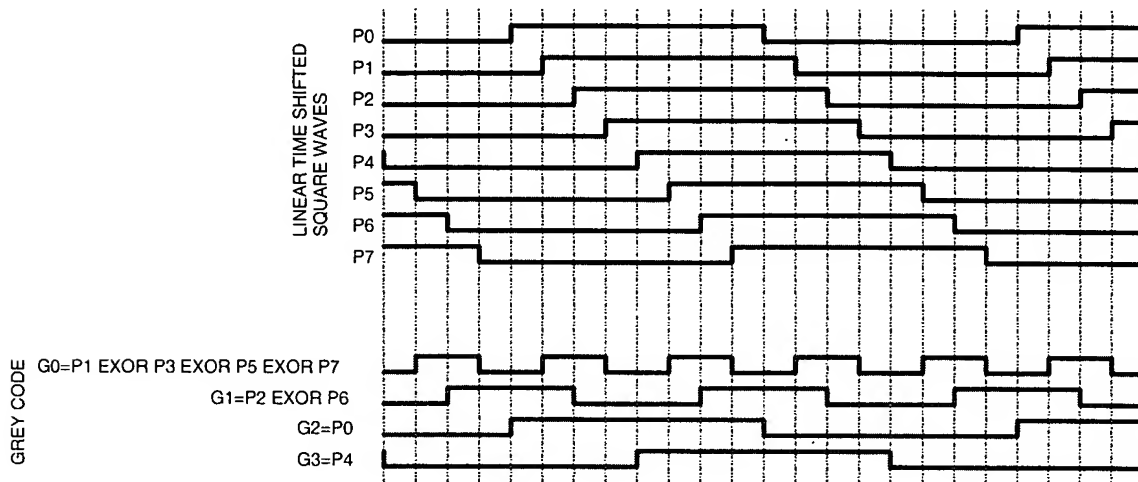**Figure 7. Phase shifted square waves at the inputs to the flip-flops.**

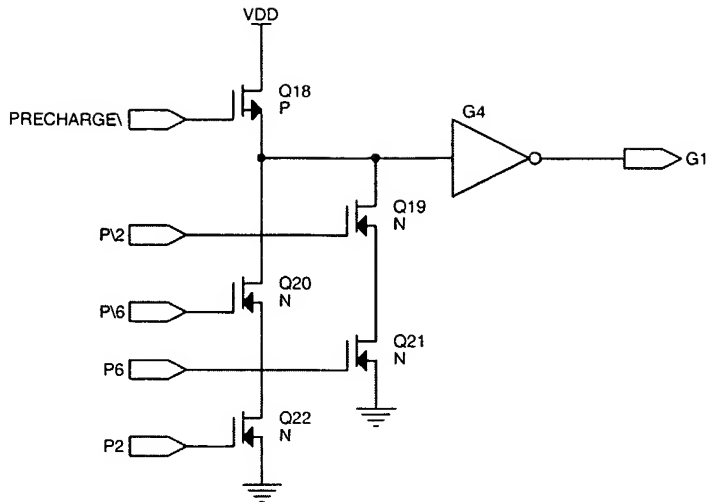**Figure 8. Conversion of the outputs of the flip-flops into Gray Code bits.**
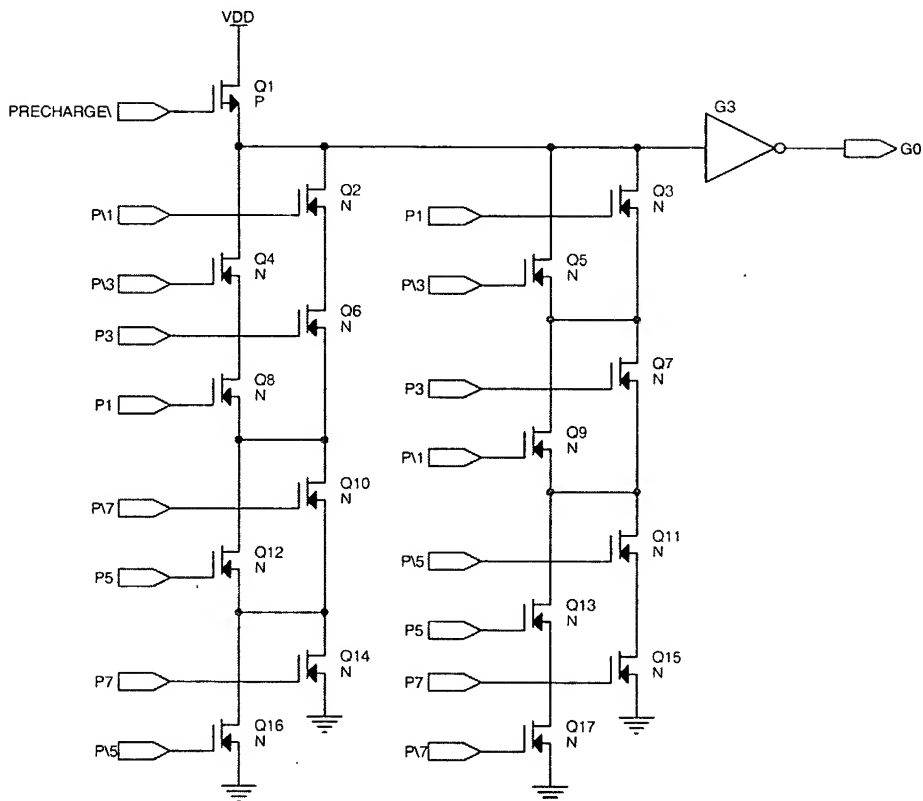
Figure 9. Embodiment of P2 EXOR P6.

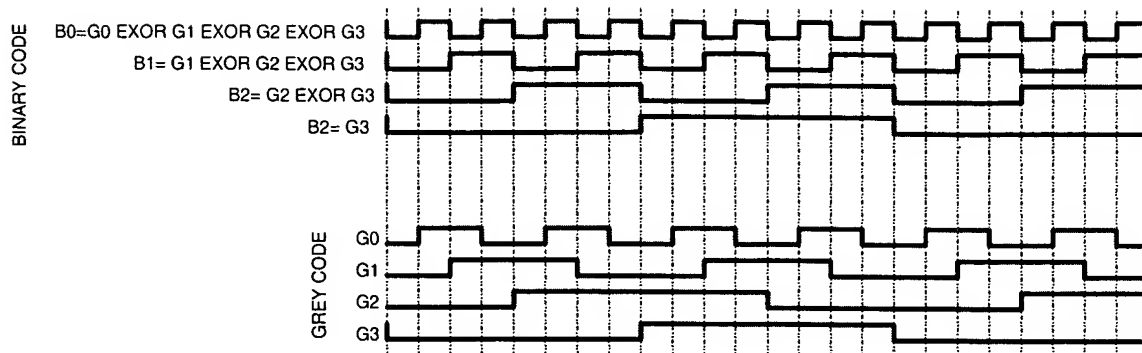**Figure 10. Embodiment of P1 EXOR P3 AND P5 EXOR P7.**

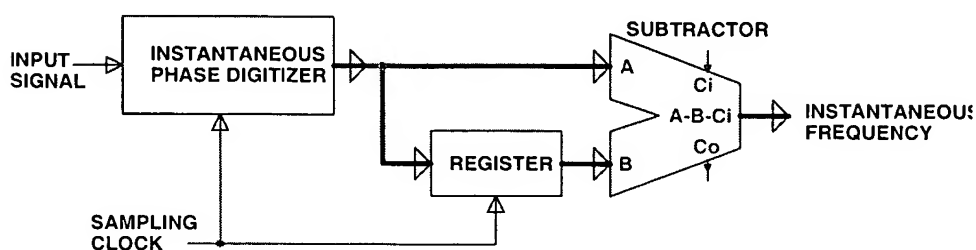Figure 11. Conversion of Gray code to Binary code.

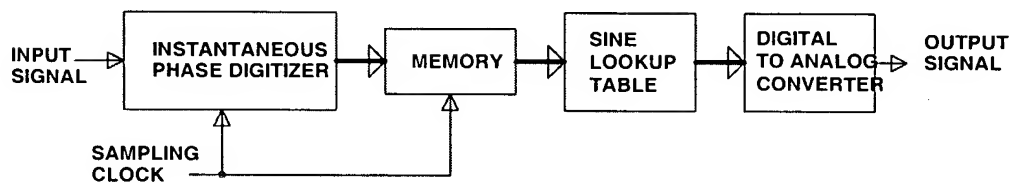Figure 12. Embodiment of an instantaneous frequency measurement circuit.
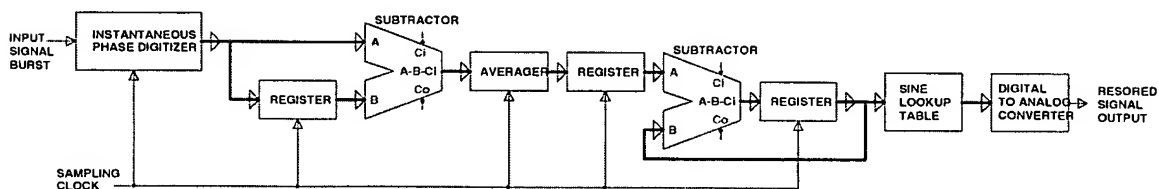

Figure 13. Embodiment of a Digital RF Memory

Figure 14. Embodiment of a frequency restoration circuit.

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